

REMARKS

The abstract has been amended to comply with the limitation of one paragraph as recommended in MPEP §608.01(b). The title of the invention has been amended to be clearly indicative of the invention to which the claims are directed. Support for the amendments to the abstract and title can be found in the original abstract and in the Summary of the Invention at page 3, line 20 to page 4, line 2 of the specification. Applicant respectfully submits that the amendments to the abstract and title overcome the Examiner's objections to the Specification as indicated in the Office Action dated October 17, 2003.

Claims 1-15 and new claims 25-28 are currently pending in the application. Claims 16-18 and 21 were previously cancelled in an amendment dated November 27, 2002. Claims 19, 20, and 22-24 are cancelled in the present amendment. Applicant expressly reserves the right to file divisional applications on the subject matter of the cancelled claims 20-24. Claim 1 has been amended to remove the language "non crosslinker containing", thereby overcoming the rejection under 35 U. S. C. §112, first paragraph. New claims 25-27 recite a solventborne activated paint pack. Support for the new claims 25-27 may be found in original claims 16-18 and in the specification at page 3, lines 20-28. New claim 28 recites a waterborne coating composition. Support for new claim 28 may be found in original claim 19 and in the specification at page 4, lines 1-2. No new matter has been added and Applicants submit that these amendments place all of the remaining claims in condition for allowance.

Applicant thanks the Examiner for the indication that the subject matter of claim 7 distinguishes the present invention over the prior art of record.

CLAIM REJECTIONS – 35 U. S. C. §112

Claims 1-24 have been rejected under 35 U. S. C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the language "non crosslinker containing" added to claims 1 and 20 and additional language added to claim 20 in the amendment

dated August 15, 2003, was not supported by the originally-filed disclosure. The offending language has been removed from claim 1, and claim 20 has been cancelled. Applicant respectfully submits that the rejection has been overcome.

Claims 16-19 and 21-24 have been rejected under 35 U. S. C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully submits that this rejection is moot in view of the cancellation of claims 16-24.

CLAIM REJECTIONS – 35 U. S. C. §103

Claims 1-6 and 8-24 have been rejected under 35 U. S. C. §103(a) as being unpatentable over Schimmel et al. (US 5,585,427) in view of Benefiel et al. (US 3,693,147 A). The Examiner asserts that Schimmel teaches a composition in which a waterborne pigment dispersion, comprising pigment dispersed in water, is dispersed in a solution of polymer in an organic solvent. The Examiner indicates that non-limiting examples of the polymer are acrylic, polystyrene, acrylonitrile, polyester, epoxy, polyamide, aminoplast, and polyurethane polymers. The Examiner concedes that Schimmel does not explicitly state that the polymer has functional groups and hydrophilic groups. The Examiner relies on Benefiel for a teaching of carboxy-hydroxy acrylic copolymers as a binder for a pigmented coating composition, alleging that the reference teaches that such a binder advantageously gives control over pigment orientation and dispersion. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to select as the acrylic polymer a carboxy-hydroxy polymer as suggested by Benefiel, and one skilled in the art would have been motivated to do so by the desire and expectation of greater control over pigment dispersion and orientation in the composition.

Applicant respectfully disagrees with the Examiner's rejection of the claims and assertions regarding the prior art. The present invention is drawn to a pigmented solventborne paint pack which can be made into a waterborne coating composition. The solventborne paint pack comprises: i) a solution in an organic solvent of polymer having functional groups and hydrophilic

groups; and ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant. The aqueous pigment dispersion itself is in dispersion in the solution i). Also provided are an activated paint pack which is much like the first, but further comprises a crosslinker dissolved in the organic solvent, as well as a waterborne coating composition. Schimmel discloses a copolymer that is virtually non-functional (an acid value <1) for use as a pigment dispersing additive, particularly useful in preparing pigment dispersions for coating compositions. The copolymer contains alternating units of a vinyl monomer and a diester of a dicarboxylic acid. Contrary to the Examiner's assertion, Schimmel does not teach a composition in which a waterborne pigment dispersion comprising pigment dispersed in water is dispersed in a solution of polymer in an organic solvent. Nowhere in the Schimmel reference is there any indication that the pigment dispersions prepared therein are waterborne. Water is disclosed as a suitable *diluent* along with multiple organic solvents for the purpose of reducing the viscosity of the dispersion (see col. 7, l. 66-col. 8, l. 16) but water is not indicated as being used as the continuous medium in the pigment dispersion. In Example 1, a mixture of Hexyl CELLOSOLVE® (monohexyl ether of ethylene glycol) and DOWANOL DPM® (monomethyl ether of dipropylene glycol) is used as the continuous medium in a pigment dispersion, and in Example 2, a mixture of Hexyl CELLOSOLVE® and PROPASOL P® (monopropyl ether of propylene glycol) is used as the continuous medium. There are no waterborne pigment dispersions disclosed in Schimmel. This is in direct contrast to the waterborne pigment dispersion recited in the instant claims and used to prepare the paint pack of the present invention. The Schimmel reference neither teaches nor suggests a solventborne paint pack comprising: i) a solution in an organic solvent of polymer having functional groups and hydrophilic groups; and ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, wherein the aqueous pigment dispersion itself is in dispersion in the solution i), as required by the present invention.

Benefiel does nothing to overcome the deficiencies of Schimmel in teaching the solventborne paint pack of the present invention. Benefiel

discloses a process for producing a multi-layer coating composition by depositing a pigmented polymeric base film on a substrate and depositing, wet-on-wet, a transparent topcoat over the base film (see abstract). Such a system is commonly referred to as a "color-plus-clear" composite coating composition. Benefiel does not teach or suggest a solventborne paint pack as recited in the present claims, and does not disclose a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, any more than Schimmel does in order to arrive at the present invention.

Moreover, it would not have been obvious to modify the teachings of Schimmel by using a carboxy-hydroxy acrylic polymer disclosed by Benefiel in order to improve pigment orientation as asserted by the Examiner. Such a motivation is not suggested by either reference. A closer reading of the Benefiel reference at col. 6, ll. 37-64 as cited by the Examiner indicates that Benefiel teaches the use of the carboxy-hydroxy acrylic polymer *in the transparent topcoat*, serving to aid pigment orientation at the *interface* of the pigmented base coat and transparent topcoat, and prevent strike-in. Strike-in is a particular appearance problem caused by migration of pigment particles from a base coat into a transparent topcoat at the interface of the two coating layers, resulting in a "dusty" appearance after application and cure. There is no teaching or suggestion in Benefiel to use the carboxy-hydroxy acrylic polymer in a pigmented solventborne paint pack for any reason.

Even if one were to modify the pigment dispersions for coating compositions disclosed by Schimmel by using a carboxy-hydroxy acrylic polymer as taught by Benefiel, one would not arrive at the present invention. Neither reference, taken alone or in combination, teaches or suggests a pigmented solventborne paint pack which can be made into a waterborne coating composition, comprising, *inter alia*, a waterborne pigment dispersion. There is no disclosure in either reference of a waterborne pigment dispersion, itself dispersed in a solvent, as part of a solventborne paint pack as required by the present invention. There is additionally no disclosure in either reference of a solventborne activated paint pack or a waterborne coating composition as recited in the instant claims.

In view of the foregoing amendments and remarks, it is believed that all pending claims in the application are in condition for allowance and a favorable response is requested. If the Examiner has any questions, please contact Applicant's representative undersigned below at (412) 434-2881.

Respectfully submitted,

A handwritten signature in cursive script, reading "William J. Uhl", is written over a horizontal line.

William J. Uhl
Registration No. 25,567
Attorney of Record
Telephone: (412) 434-2881
Facsimile: (412) 434-4292

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